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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,777	07/22/2002	Aime Perrin	025219-386	6070

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BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER	
ALEMU, EPHREM	
ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 10/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/049,777	PERRIN ET AL.	
	Examiner	Art Unit	
	Ephrem Alemu	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 July 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *7* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract contains legal phraseology such as "means" and "said" in lines 5, 7, 11 and 12; and phrases, which can be implied, such as, "The present invention" in line 1. Appropriate correction is required. See MPEP § 608.01(b).

3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claims 1-33 are objected to because of the following informalities:

(i) In claim 1, line 1, replace "Device" with "A device";

line 7, "the vicinity" with --a vicinity--;

lines 9 and 12, respectively, replace "means forming" with --means for forming--;

line 11, "or so that the first electrode is inserted" with --or the first electrode being inserted--; and

line 14, replace "means of control" with --control means--.

(ii) In the dependent claims 2-6, 26 and 27, line 1, respectively, replace "Device" with --The device-- to eliminate lack of antecedent basis.

(iii) In claims 7 and 24, lines 1, respectively, replace "Process" with --A process--.

(vi) In claim 7, lines 4 & 9, in claim 24, lines 10 & 16, and claim 25, lines 10 & 16, respectively, replace "the application of" with --applying-- in order to clearly distinguish the process steps.

(v) In claims 8 and 9, line 1, respectively, replace "Process" with --The process-- to eliminate lack of antecedent basis.

(vi) In claim 10, line 1, replace "Field" with –A field--; delete "as one wishes" which is redundant; and since claim 10, is not written in accordance with rule § 1.75(I), **where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation**, examiner suggests for the applicants' to rewrite claim 10 as required in rule § 1.75(I).

(vii) In claims 11-23 and 28-33, respectively, replace "Display screen" with --The screen-- to eliminate lack of antecedent basis.

(viii) In claims 20 and 32, crossing of lines and column lack antecedent basis.

Furthermore, examiner request applicant cooperation to correct additional errors and to remove any redundant words and correct grammatical errors to make the claimed limitations clear. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2, 3, rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claims 2 and 3, respectively, the recitation "the means for applying a potential difference between the first and the second electrode and the control means supply potential differences" is indefinite because it is not clear whether the means for applying as claimed in claims 2 or 3 is the same or different as "means for applying" as claimed in claim 1. In addition does the word "between" refer to "between the first and second electrode" or between the first electrode, second electrode and the control means"? Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Tjaden et al. (US 5,374,868).

Re claim 1, Tjaden discloses a device for producing an electric field between a first electrode (i.e., cathode 13) and a second electrode (i.e., anode 16), comprising:

means for applying a potential difference between these two electrodes (20), allowing to obtain, if this potential difference is applied alone, a predetermined value of electric field in a vicinity of the first electrode (13) (Figs. 1-3; Col. 3, lines 9-46),

means forming modulation electrode (i.e., gate 15) located near to the first electrode (i.e., cathode 13), in the same plane, as the first electrode (i.e. cathode 13),

control means for applying a potential difference between the means for forming modulation electrode (i.e., gate 15) and the first electrode (i.e., cathode 13) in order to obtain another predetermined electric field value in the vicinity of the first electrode (i.e., cathode 13) .

9. Claims 1-4, 6-12, 14, 24-26 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Lees (US 3,671,798).

Re claim 1, Lees discloses a device for producing an electric field between a first electrode (16) and a second electrode, comprising:

means for applying a potential difference between these two electrodes, allowing to obtain, if this potential difference is applied alone, a predetermined value of electric field in a vicinity of the first electrode (16) (Figs. 1-4; Col. 5, line 26- Col. 6, line 37),

means of forming modulation electrode (22) located near to the first electrode (16), so that the first electrode is inserted between the second electrode and the means forming modulation electrode (Figs. 1-4; Col. 5, line 26- Col. 6, line 37),

control means for applying a potential difference between the means for forming modulation electrode (22) and the first electrode (16) in order to obtain another predetermined electric field value in the vicinity of the first electrode (16) (Figs. 1-4; Col. 5, line 26- Col. 6, line 37).

Re claims 2 and 3, Lees further shows the means for applying a potential difference between the first (16) and the second electrode and the control means supply potential differences such that the value of the electric field in the vicinity of the first electrode (16) is greater or lower than the value which would be due to the potential difference alone between the first (16) and the second electrode (Col. 5, line 26- Col. 6, line 37).

Re claims 4, 6, 26 and 29, Lees further shows that the first (16) and the second electrode and the means forming modulation electrode (22) are arranged in parallel and when the first electrode (16) is inserted between the second electrode and the means forming modulation electrode (22), the means forming modulation electrode is made up of a single electrode (Figs. 3, 4a).

Re claims 7-9, 24, and 25, given Lees device for producing an electric field between a first electrode (16) and a second electrode as discussed above in claims 1-3, the process for producing an electric field between a first electrode and a second electrode as claimed in claims 7-9, 24 and 25 is inevitable.

Re claims 10-12 and 14, the language of the claimed limitations has been discussed above in claims 1-3. Therefore, claims 10-12 and 14 are rejected for the same reason given above in claims 1-3.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 5, 13, 15-19, 27, 28, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lees (US 3,671,798) in view of Konishi (US 5,982,091).

Re claims 5, 27 and 28, Lees discloses the claimed limitation except the means forming modulation electrode comprise two electrodes surrounding the first electrode (25).

Konishi discloses a device for producing an electric field between a first electrode (10) and a second electrode (6) including a means forming modulation (i.e. gates 12) comprising two electrodes surrounding the first electrode (10) for the purpose of controlling the electron emitted from the emitter (abstract, Fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the means forming modulation electrode of Lees' in view of Konishi's means forming modulation electrode comprising two electrodes for no other reason than controlling the electron emitted from the emitter.

Re claim 13, the language of the claimed limitations has been discussed above in claim 5. Therefore, claim 13 is rejected for the same reason given above in claims 1-3.

Re claims15 and 30, Lees further shows that the cathode electrode is located between the anode electrode and the means forming modulation electrode (22), the cathode electrode (16) and the means forming modulation electrode (22) are separated by a layer of insulating material (18) (Fig. 3).

Re claims 16-19 and 31, Lees further discloses the cathode electrode (16) comprises a conductor element (20) on which a layer of emissive material is deposited (Fig. 3). Furthermore, separating the emissive layer from the conductor element (20) by a resistive film as claimed in claims 17-19 is an obvious design choice since it is well in the skill for a person having ordinary skill in the display art.

12. Claims 20-23, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lees (US 3,671,798) in view of Tjaden (US 5,374,868).

Re claims 20 and 32, Lees is silent about pixel from being the crossing of the modulation electrode (22) and first electrode (i.e., cathode 16).

Tjaden discloses the crossing of the modulation electrode (15) and first electrode (i.e., cathode 13) defining a pixel (Fig. 3).

It would have been well in the skill of an artisan to provide Lees' device matrix addressable array for the purpose of exciting phosphor on a screen.

Re claims 21-23 and 33, given Lees' modified by Tjaden device the arrangement of the pixel as defined in claims 21-23 and 33 is an obvious design choice since it is well in the skill for a person having ordinary skill in the art.

Conclusion

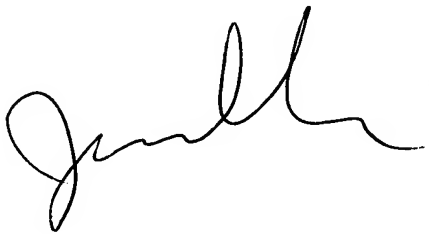
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim (US 5,825,126) ; Karpov et al. (US 5,818,166); Blanchet-Fincher et al. (US 5,578,901) ; and Kane et al. (US 5,252,833); also teach similar inventive subject matter.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (703) 306-5983. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K Wong can be reached on (703) 308-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



EA
9-25-03